

-30 -

WE CLAIM:

1. A use of an effective amount of a purine nucleoside selected from guanosine, inosine or an analog of guanosine or inosine for the manufacture of a medicament for preventing apoptosis in a cell of the nervous system.
2. The use according to claim 1 wherein the cell of the nervous system is from the central nervous system.
- 10 3. The use according to claim 2 wherein the cell is an astrocyte or a neuron.
4. The use according to any one of claims 1 to 4 for the manufacture of a medicament for preventing or treating a neurodegenerative disease, a stroke, 15 a head injury or a spinal cord injury.
5. The use according to claim 4 wherein the neurodegenerative disease is selected from Alzheimer's disease, Huntington's chorea or Parkinson's disease, Bell's Palsy, Pick's disease, multiple sclerosis and amyotrophic 20 lateral sclerosis, and prion-induced diseases.
6. The use according to claim 5 wherein the prion-induced disease is selected from Creutzfeldt-Jacob disease, scrapie, and bovine spongiform encephalopathy.
- 25 7. A pharmaceutical composition for preventing apoptosis in a cell of the nervous system comprising an effective amount of a purine nucleoside selected from guanosine, inosine or an analog of guanosine or inosine in admixture with a suitable diluent or carrier.
- 30 8. The pharmaceutical composition according to claim 7 wherein the cell of the nervous system is from the central nervous system.

-31 -

9. The pharmaceutical composition according to claim 7 wherein the cell is an astrocyte or a neuron.
- 5 10. The pharmaceutical composition according to any one of claims 7 to 9 for the manufacture of a medicament for preventing or treating a neurodegenerative disease, a stroke, a head injury or a spinal cord injury.
- 10 11. The pharmaceutical composition according to claim 10 wherein the neurodegenerative disease is selected from Alzheimer's disease, Huntington's chorea or Parkinson's disease, Bell's Palsy, Pick's disease, multiple sclerosis and amyotrophic lateral sclerosis, and prion-induced diseases.
- 15 12. The pharmaceutical composition according to claim 11 wherein the prion-induced disease is selected from Creutzfeldt-Jacob disease, scrapie, and bovine spongiform encephalopathy.
- 20 13. A use of an effective amount of a purine nucleoside selected from guanosine, inosine or an analog of guanosine or inosine for the manufacture of a medicament for preventing glycogen synthase kinase-3 β activity in a cell of the nervous system.
- 25 14. A use of an effective amount of a purine nucleoside selected from guanosine, inosine or an analog of guanosine or inosine for inducing the expression and/or activity of Bcl-2 in a cell of the nervous system.